## TECHNOLOGY CONVERGENCE 2023

# Pilot Intelligent Access special road transport in The Netherlands

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# 1. Why, what and how

### 2. Results and follow-up





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#### **Developments:**

I. Growth of freight transport in general and on roads especially



- II. Growth in numbers, weights, dimensions and configurations III. Capacity and quality of our road network is under pressure
- IV. Insufficient measures to monitor, controll and enforce

#### **Policy goals:**

- Cost/damage road-assets by controle on routes and weights for road transport
- Insight in use of road-assets and impact on (re-)construction and maintaining
- 3. Road safety with registration and clarification of events in use (i.e. ADAS)
- 4. Accessibility, sustainability and livability (i.e. modal shift policy: off-road)
- Public interterventions like traffic/incident management or inspections 5.
- Support efficiency, digitalization and cooperation in logistic chain
- **Pilot goals:** testing feasability and scalability with existing means on:
- a. Functional-technical level;
- b. Organization & cooperation;
- c. Knowledge & support;
- d. Reliability & security





- Intelligent access is using modern means to controll risks and compliance of road transport with bigger dimensions and weights (HCT/EMS) or dangerous loads (ADR)
- Pilot in NL is part of a program bij RWS as NRA, called 'core network logistics', for coherence, control and robustness in transport of goods.
- RWS leads cooperation of public authorities and two private consortia based on a public tender (total grand a modest 2 X €65k ex. VAT)
- Existing Fleet Management Services (rFMS), Transport Management Services (TMS) and digital freight letters (eCMR) are selectively used for monthly reports and urgent messages to dedicated authorities (B2B B2G).
- Companies want to distinguish in a positive way (i.e. ecofoothprint per trip) and contribute to the level playing field (i.e. overloading)
- Privacy-by-design: data sharing on need-to-know base, mostly aggregated and very selective use to prevent real road safety, not for direct repression (i.e. fines)







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# **Monitoring KPI's**

- 1. Type of goods for Incidentmanagement and Modal Split
- 2. Geotraces related to geofences according to actual exemptions
- 3. Weights on axles and total for verhicles-configurations and freight related to letter from shipper, limits in exemptions or type approval
- 4. Traffic safety events (i.e. harsh braking) or real accidents
- 5. Traffic speed (i.e. <50km/h) and emissies (i.e. CO2)





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# Information flow and tresholds urgent traffic safety push messages

- Police: route deviance >5 minutes and/or 300 meter; weight >125% exceed and >5 min on public roads
- Rijkswaterstaat (NRA): Accident (like eCall) and runflat-tire > 2 times < 0,8 bar update from Tire Pressure Monitoring System on motorways (or broader incident network)

6 Marks and numbers Marques et numéros Merken en nummers Kenzeichen und Nummern	7 Number of packages Nombre de cois Aantal colli Anzahl der Packstücke	8 Method of packing Mode de emballage Wijze van verpakking Art der Verpackung	9	Nature of the goo Nature de la merchandise Aard der goeden Bezeichnung des
GOODS/ GO	DEDEREN			
	10			10 units T)
Total:	10			
		RAGE L/100KM		SPEED
8	27.34	27.34		
ALERTS AXLE LOAD (TON) >25%	SOS DRIVER	HIJACKALERT		



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AVERAGE KM/U 5.02

5,02

# **Conclusions (selection)**

- 1. Functional-technical it's almost feasable and scalable
- 2. Many lessons learned, many opportunities and dependencies
- 3. Need clear support and perspective for further developments (in NL and EU)
- 4. Matches with digitalization and risk management with data/info (i.e. assets and traffic)
- 5. Additional to road systems (i.e. WiM and camera's) for monitoring, more selective inspection or enforcement and fair competition
- 6. Start with special road transport regardings risks and regulations and team up with other transport modes (rail and shipping)



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# Follow up actions and conditions (selection)

- A. Grounding principles for this datasharing in policy and regulations in NL and EU
- B. Normalisation and operationalisation of pre trip axle registrations in rFMS and eCMR
- C. Automated publication and control of information on limitations in routes and roads
- D. Creation and/or integration of tools for monitoring road safety around EMS2
- Adaptation and integration in data dump for generic statistic monitoring (by CBS) E.
- Exploring less purpose limitations by GDPR for ANPR-camera's for dodgers F.
- G. Clear coordination and coherence between digitalization programs/projects
- H. Construction of trust in quality and security of information (i.e. urgent messages to police), with professional standardization, inspections and special authority (i.e. TCA)









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